Designing semiconductor ...

$$I_{opt.} = \frac{2eT}{\rho\frac{l}{S}} \cdot \frac{1}{\sqrt{1+\frac{2ZT}{1+\frac{kF}{\lambda\frac{S}{l}}}}+1}, \qquad (20) \qquad (20),$$

where $Z = e^2/\rho\lambda$. 3) T_o changes with Q_o. For $I = 0$ and $I = 2eT/(\rho l/S)$, the temperature of the cooled object is equal to the temperature of the surrounding medium. The minimum value of T_o is reached for $I = I_{opt}$. Fig. 4 shows the thermal, energy, and temperature characteristics of a semiconductor household refrigerator with 50 thermocouples ($S_1 = S_2 = 0.5$ cm^2, $l = 1$ cm; $\rho_1 = \rho_2 = 1.2 \cdot 10^{-3}$ ohm.cm, $e_1 = e_2 = 180$ μv/°K, $\lambda_1 = \lambda_2 = 12.5 \cdot 10^{-3}$ w/cm.°K; kF = 0.7 w/°K, T' = 300°K). The effect of the number of elements on Q is also investigated. Fig. 5 shows Q(I) for 25, 50, and 100 thermocouples. The dashed line has been constructed according to Eq. (7) for T = 307°K and T_o = 270°K. The current correspond-

Card 7/10

S/181/61/003/004/014/030
B102/B214

Designing semiconductor ...

ing to the maximum of Q_o slightly depends on the number of thermocouples and is in accordance with the current calculated from Eq. (20) and, consequently, differs only little from the value calculated from formula (4). There are 5 figures and 2 Soviet-bloc references.

ASSOCIATION: Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti (Odessa Technological Institute of Food Materials and Refrigeration Industry)

SUBMITTED: July 18, 1960 (initially) and November 1, 1960 (after revision)

Card 8/10

MARTYNOVSKIY, V.S., doktor tekhn.nauk; MAYER, V.A., kand.tekhn.nauk

Semiconductor heat-transfer intensifiers and heat insulators. Khol. tekh. 38 no.3:4-7 My-Je '61. (MIRA 15:1)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.

(Heat exchangers)
(Insulation (Heat))
(Semiconductors—Thermal properties)

42081

S/170/62/005/011/006/008
B104/B102

AUTHORS: Nayer, V. A., Rozhentseva, S. A.

TITLE: Design of semiconductor coolers and heaters for liquid flows

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no.11, 1962, 90 - 94

TEXT: The characteristics of heaters and coolers for liquid flows, consisting of semiconductor thermopiles, are calculated for the thermocouples having different dimensions in order to achieve maximum possible efficiency. The dimensions of the thermocouples are determined from

$$\frac{l}{S} = \alpha(T - T_0)\left\{\rho l\left[\left(1 + \frac{T + T_0}{2} Z\right)^{1/2} - 1\right]\right\}^{-1}, \quad (1)$$

$$Z = \frac{\alpha^2}{\rho\lambda}. \quad (2).$$

The thermal equilibrium of the liquid to be cooled and of the cold junctions gives

$$-GcdT_0 = \left[\alpha T_0 I - \frac{1}{2} I^2 \rho \frac{l}{S} - \lambda \frac{S}{l}(T - T_0)\right] dn, \quad (3),$$

Card 1/4

from which there follows $$-\frac{Gc}{\alpha l}\frac{dT_0}{dn} = T_0 - \frac{1}{2}\frac{T-T_0}{M-1} - \frac{M-1}{Z},$$

$$M = \left(1+\frac{T+T_0}{2}Z\right)^{1/2} \qquad (4)$$

allowing for (1). Here $M = (1+\frac{T+T_0}{2}Z)^{1/2}$ = const. The solution to (4) is

$$n = \frac{Gc}{B\alpha l}\ln\frac{\psi_0}{\psi}, \qquad (5)$$

$$B = \frac{2M-1}{2(M-1)},$$

$$\psi_0 = T - B(T-T_{01}) - \frac{1}{Z}(M-1), \qquad (6)$$

$$\psi = T - B(T-T_0) - \frac{1}{Z}(M-1). \qquad (7)$$

whereby the number of thermocouples can be determined as a function of the temperature of the liquid to be cooled. The liquid temperature can be

determined in the same way: $$T_0 = T_{01} - \frac{\psi_0}{B}\left[1 - \exp\left(-\frac{\alpha \ln B}{Gc}\right)\right].$$ (8).

The amount W of electric energy consumed at the hot junctions is

$$W = \frac{2MGc(T_{01} - T_0)}{2M - 1}\left[\frac{TZ - M + 1}{Z(\psi_0 - \psi)} \ln\frac{\psi_0}{\psi} - 1\right].$$ (14)

and the heat Q released at the hot junctions is

$$Q = \frac{Gc(T_{01} - T_0)}{2M-1}\left[\frac{2M(TZ-M+1)}{Z(\psi_0 - \psi)} \ln\frac{\psi_0}{\psi} - 1\right].$$ (15)

Formulas are given for the cooling and heating factors are used to calculate the efficiency. With given G, c, T, T_{01} and T_0 the electric energy consumed and the thermal energy released at the hot junctions depend neither on the amperage nor on the dimensions of the thermocouples. A thermopile designed for heating

liquids is studied in a similar way. $n = \frac{Gc}{B\varkappa I} \ln \frac{\psi}{\psi_1}$, (23),

$$W = \frac{2MGc(T - T_1)}{2M - 1}\left[1 - \frac{T_0 Z - M + 1}{Z(\psi - \psi_1)} \ln \frac{\psi}{\psi_1}\right], \quad (25)$$

$$\varphi_{max} = \frac{2M - 1}{2M}\left[1 - \frac{T_0 Z - M + 1}{Z(\psi - \psi_1)} \ln \frac{\psi}{\psi_1}\right]^{-1}. \quad (26)$$

are obtained where

$$\psi = T_0 + B(T - T_0) - \frac{1}{Z}(M - 1), \quad (27)$$

$$\psi_1 = T_0 + B(T_1 - T_0) - \frac{1}{Z}(M - 1). \quad (28).$$

Finally, the formulas for the load characteristics of the thermopile are discussed.

ASSOCIATION: Tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, g. Odessa (Technological Institute of the Food and Refrigeration Industry, Odessa)

SUBMITTED: March 31, 1962

Card 4/4

MARTYNOVSKIY, V.S., doktor tekhn.nauk, prof.; NAYER, V.A., kand.tekhn.nauk, dotsent; ROZHENTSEVA, S.A., inzh.

Thermoelectric cooling agents. Trudy OTIPiKhP 12:3-12 '62. (MIRA 17:1)

1. Kafedra kholodil'nykh mashin Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.

NAYER, V.A., kand.tekhn.nauk, dotsent

Methods for the design and calculation of thermoelectric coolers for liquids. Trudy OTIPiKhP 12:13-21 '62. (MIRA 17:1)

1. Kafedra kholodil'nykh mashin Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.

NAYER, V.A., kand. tekhn. nauk

Investigating the semiconductor systems of refrigerating and ice-making machinery. Khol. tekh. 39 no.5:42-46 S-O '62. (MIRA 16:7)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.
(Refrigeration and refrigerating machinery—Research)
(Semiconductors)

MARTINOVSKIY, V. S., NAYER, V. A., and KOZHENTSEVA, S. A.

Thermoelectric Refrigeration and Prospects for Its Wide Scale Technical Application.

report submitted for the 11th Intl. Congress of Refrigeration, Munich, Germany 27 August - 4 Sept 1963

S/066/63/000/001/001/002

AUTHOR: Mayer, V. A., Candidate of Technical Sciences and Rozhentseva, S. A., Engineer

TITLE: A semiconductor cooler for liquids

PERIODICAL: Kholodil'naya tekhnika, no. 1, 1963, 20-23

TEXT: A semiconductor cooler for liquids with a cooling capacity of 400 kcal/hr, with cooling from 25 to 10-12° was developed in the laboratoriya poluprovodnikov (Semiconductor Laboratory) of the Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti (Odessa Technological Institute for the Food and Refrigeration Industry). The cooler has 2 batteries of thermal elements (20 x 20 x 3 mm) made of alloys of tellurium, bismuth, antimony, and selenium, with alloying admixtures. Their characteristic is $z = 2.1 \times 10^{-3}$ 1/°K. The thermal elements were filled with epoxy resin and connected in series by connecting plates (42 x 21 x 2 mm). Hot junctions were water cooled. Ribs were made of copper foil. Each plate with hot junctions had 16 ribs 3 mm high and 0.05 mm thick; plates with cold junctions had 9 ribs 9 mm high and 0.2 mm thick. Textolite partitions which formed the walls of channels for cooling water and the fluid to be cooled were placed between the connecting plates. The cross section of a channel was 60 mm^2 on the cold side and 140 mm^2 on

Card 1 of 2

S/066/63/000/001/001/002

A semiconductor cooler ....

the hot side. The weight of a thermal battery was about 5 kg, that of thermal elements 0.85 kg, and the connecting plates 1.4 kg. A model was tested with water at 23.4°, the cooled water flow was 18 and 15 kg/hr, the consumption of cooling water was 90 and 80 kg/hr. Power losses in the connecting plates should be taken into account when the current through them is more than 100 a, with calculated losses at 8.4% of the power supply. Losses due to contact electrical resistance were about 6-8%. In cooling 18 kg of water per hour, the maximum cooling capacity was obtained with a current of 300 a. Increased flow of cooling water increased the cooling capacity. Several industrial models of semiconductor coolers for liquids are under development. Two figures were given to show the structure of the cooler and one figure showed test results.

ASSOCIATION: Odessa Technological Institute of the Food and Refrigeration Industry

Card 2 of 2

NAYER, V.A., kand. tekhn. nauk, dotsent; SEMENYUK, V.A.

Effect of current pulsations on the characteristics of thermoelectrons of semiconductors in cooling and heating devices. Izv. vys. ucheb. zav.; energ. 6 no.6:31-37 Je '63. (MIRA 16:11)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti. Predstavlena kafedroy kholodil'nykh mashin.

NAYER, V.A., kand. tekhn. nauk; GARACHUK, V.K., inzh.

Testing of semiconductor coolers for transistors. Khol. tekh. no.1:3-8 '65. (MIRA 18:9)

MAYER, V.B., [illegible] tekhn. nauk

Effect of electric and thermal contact resistances on the characteristics of semiconductor batteries. Khol. tekh. tekh. no.1:9-15 '65. (MIRA 18:9)

GARACHUK, V.K.; NAYER, V.[illegible].

Semiconductor thermoelectric coolers for transistors. Izv.vys. ucheb.zav.; prib. 8 no.1:176-181 '65.

(MIRA 18:3)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti. Rekomendovana kafedroy kholodil'nykh mashin.

L 00962-66 EWT(1)/T/EWA(h) Pe-5/Pu-4 AP

ACCESSION NR: AP5019826 UR/0066/65/000/004/0019/0022
621.56:621.382.004.12

AUTHOR: Nayer, V. A. (Candidate of technical sciences)

TITLE: Effect of thermocouple geometrical dimensions on the characteristics of a semiconductor refrigeration unit

SOURCE: Kholodil'naya tekhnika, no. 4, 1965, 19-22

TOPIC TAGS: thermocouple, refrigeration, refrigerating system, semiconductor, thermodynamics

ABSTRACT: A theoretical and experimental investigation was made to determine the dependence of refrigeration capacity Q_0 and the semiconductor material consumption $G_{t.e}$ on the height l and cross section S of the thermocouples. The maximum power efficiency and the maximum refrigeration capacity are shown to be functions of the current I and the ratio S/l, or

$$Q_{0\,max} = \frac{S}{l}\lambda z \frac{M(T-T_0)(MT_0-T)}{(M-1)^2(M+1)},$$

$$Q_{0\,max} = \frac{S}{l}\lambda\left[\frac{1}{2}zT_0^2-(T-T_0)\right].$$

$$M = \sqrt{1+(T+T_0)\frac{z}{2}}.$$

Card 1/4

L 00982-66

ACCESSION NR: AP5019826

The consumption dependence on the thermocouple dimensions is given by

$$G_{0t} = \frac{\gamma Q_{0t}}{\psi(\varepsilon)} P,$$

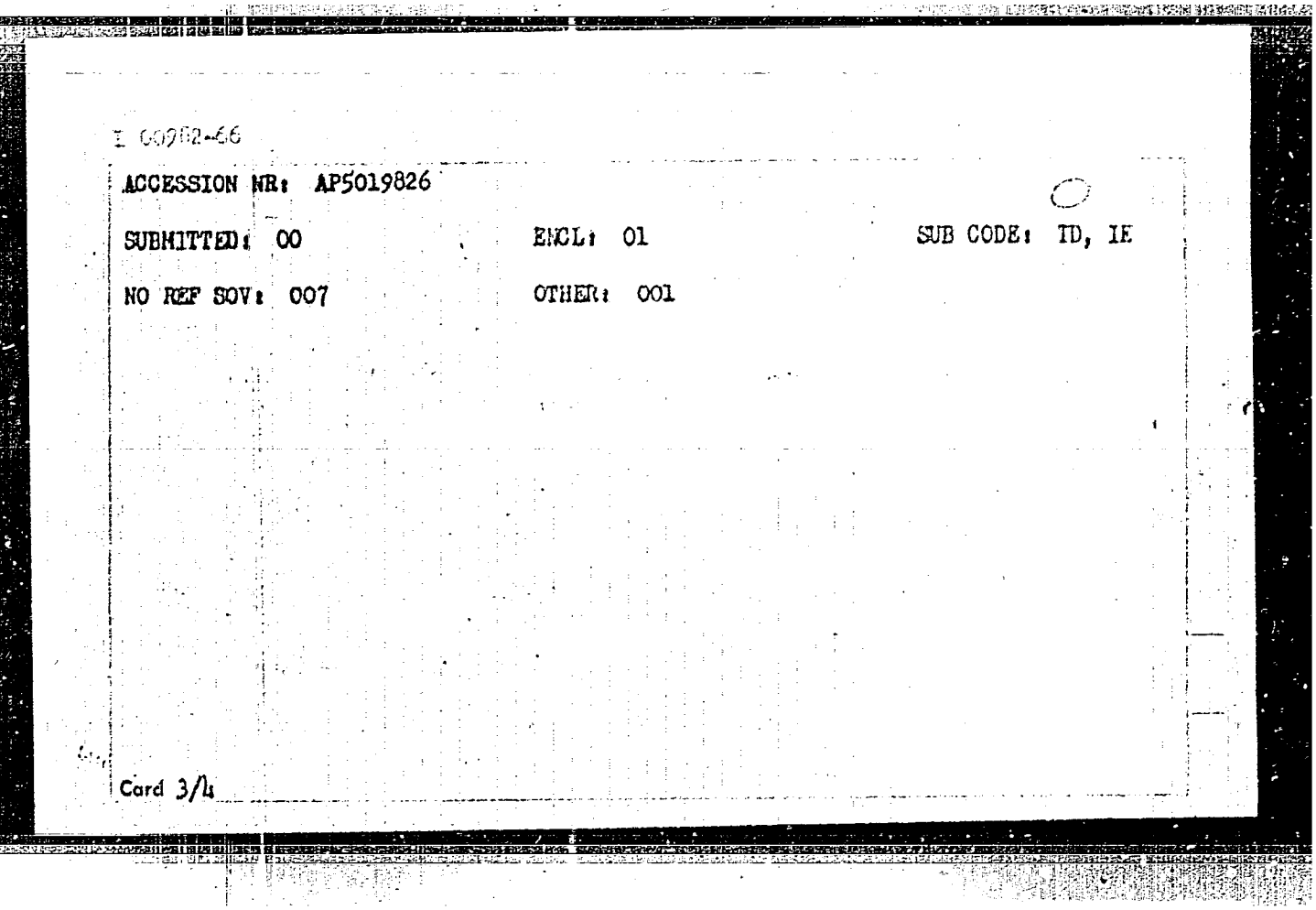
where

$$\varepsilon = \frac{\alpha T_0 l - \frac{1}{2} P \rho \frac{l}{S} - \lambda (T - T_0) \frac{S}{l}}{P \rho \frac{l}{S} + \alpha l (T - T_0)},$$

It is shown that for each ε, except ε_{max}, two values exist for the ratio G_{0t}/Q_{0t}. This shows that the internal energy processes inside the thermocouples do not limit the selection of the height l. Experiments with three thermopiles were carried out to substantiate the above results and to determine the effect of heat transfer and contact resistance of the thermocouples on the refrigeration capacity. The cooling was done on water from 23C to 10C with ε = 1.1. The agreement between the measurements (dots) and theory (colid line) was very good as shown in Fig. 1 on the Enclosure. Orig. art. has: 13 formulas, 4 figures, and 1 table.

ASSOCIATION: Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti (Odessa Technological Institute for Food and Refrigeration Industries)

Card 2/4



I 60982-66

ACCESSION NR: AP5019826

SUBMITTED: 00 ENCL: 01 SUB CODE: ID, IE

NO REF SOV: 007 OTHER: 001

Card 3/4

L 00782-66

ACCESSION NR: AP5019826

ENCLOSURE: 01

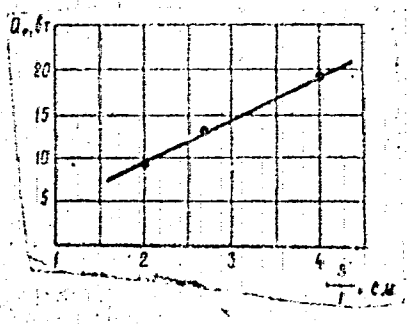


Fig. 1.

Card 4/4

L 43893-65 EPR/EWG(c)/EWT(l)/EWG(m)/T Pa-4/Pz-6 IJP(c) AT

ACCESSION NR: AP5010074 UR/0170/65/008/004/0493/0498

AUTHOR: Nayer, V. A.

TITLE: Transient regimes in cooling and heating of thermoelectric units

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 4, 1965, 493-498

TOPIC TAGS: semiconductor, thermoelectric cooling, thermoelectric power, transient heat transfer, temperature distribution

ABSTRACT: A detailed theoretical analysis has been made of thermoelectric semiconductor devices used for cooling and heating various bodies. The analysis consists [illegible] heat transfer studies of the thermoelectric cooling and heating pro- [illegible] temperature

expressions for cooling and heating $\tau = \frac{mc}{kL} \ln \frac{(zT_{01} + 1 - L)(zT_0 + 1 + L)}{(zT_{01} + 1 + L)(zT_0 + 1 - L)}$,

$L = \sqrt{1 + 2zT + z^2 e^{-2}(eT - U)^2}$, and

$\tau = \frac{mc}{kL'} \ln \frac{(L' - zT_1 - 1)(L' + zT + 1)}{(L' - zT - 1)(L' + zT_1 + 1)}$, $L' = \sqrt{1 + 2zT_0 + z^2 e^{-2}(U + eT_0)^2}$. Conditions for

Card 1/2

L 43893-65

ACCESSION NR: AP5010074

maximum time of cooling and heating are investigated, and the following expressions are obtained for maximum power efficiency:

$$W_{min} = \frac{mc(M+1)}{M}\left[\frac{T(M-1)}{M}\ln\frac{MT_{01}-T}{MT_0-T} - (T_{01}-T_0)\right]$$ for cooling, and

$$W_{min} = \frac{mc(M+1)}{M}\left[T-T_1-\frac{T_0(M-1)}{M}\ln\frac{MT-T_0}{MT_1-T_0}\right]$$ for heating. These results are simplified into the form of approximate expressions. In these equations M is given by $M = \sqrt{1+(T+T_0)2/2}$. Orig. art. has: 41 equations.

ASSOCIATION: Tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, Odessa (Odessa Technological Institute of Food and Refrigerator Industries)

SUBMITTED: 20May64 ENCL: 00 SUB CODE: TD,MA

NO REF SOV: 004 OTHER: 000

Card 2/2 CC

ACC NR: AP6021788 SOURCE CODE: UR/0413/66/000/012/0052/0052

INVENTORS: Garachuk, V. K.; Lavrenshenko, G. K.; Nayer, V. A.

ORG: none

TITLE: A low temperature device. Class 21, No. 182778 [announced by Odessa Technological Institute of the Food and Refrigeration Industry (Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 52

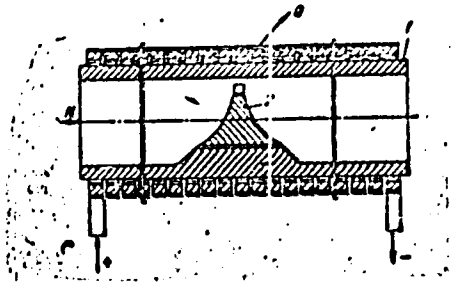
TOPIC TAGS: refrigerating system, refrigeration, refrigeration engineering, refrigeration equipment, Ettinghausen effect, Peltier effect, thermal battery, low temperature battery

ABSTRACT: This Author Certificate presents a low temperature device based on the effects of Peltier and Ettinghausen (see Fig. 1). For the simultaneous utilization of a thermoelectric battery as the generator of low temperature and as a source of the magnetic field for the Ettinghausen cooling device, the thermal battery is made in the form of a cylindrical solenoid.

Card 1/2 UDC: 621.362.2:535.48

ACC NR: AP6021788

Fig. 1. 1 - thermal battery; 2 - single crystal



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 12Apr65

Card 2/2

ACC NR: AP7005267 SOURCE CODE: UR/0371/66/000/006/0084/0090

AUTHOR: Nayer, V. A.—Naers, V.; Raman, M. L.—Ramans, M.; Simanovskaya, A. Ye.—Simanovska, A.; Stafetskiy, L. P.—Stafeckis, L.; Shalenyy, E. G.—Salonijs, E.

ORG: Institute of Physics and Power Engineering of the Academy of Sciences, Latvian SSR (Fiziko-energeticheskiy institut AN Lat)

TITLE: Investigation of semiconductor thermopiles for cooling and heating of air

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 6, 1966, 84-90

TOPIC TAGS: semiconductor device, refrigeration equipment, thermoelectric cooling, thermoelectric equipment, AIR CONDITIONING EQUIPMENT, AIR HEATER

ABSTRACT:

The design and development of a semiconductor thermopile which is the basis of a prospective all-year-round air conditioner for passenger railroad cars is described. The thermopile is made from materials whose z is in the range of $(2—2.2)\cdot10^{-3}$ 1/K. The basic materials for its positive side are Sb_2Te_3 and Bi_2Te_3; for the negative side they are Bi_2Te_3 and Bi_2Se_3. It is made from 96 thermocouple elements (20 x 20 x 3.8 mm each) connected in a series circuit with copper commutational plates which are finned on the cold and hot sides. The fins are 40 and 60 mm high on the cold and hot sides, respectively, and their thickness and the spacing between them are 0.5 mm

Card 1/2 UDC: none

ACC NR: AP7005267

and 1 mm. The hot junction is cooled by forced air circulation. The thermopile was bench-tested under simulated environmental conditions to determine its cooling and heating capacities. The maximum obtained cooling capacity was 425 w at a cooling factor of 0.57 for an airflow rate of 150 kg/hr. The heating capacity ranged from 170 to 600 w at a heating factor from 3.2 to 1.5 for an airflow rate of 222 kg/hr and an operating current range from 50 to 150 amps. A disadvantage of the thermopile is its low cooling factor in comparison to that of compression-type coolers. The thermopile heater is more efficient than electrical heaters, however. Since air conditioners on railroad cars operate as heaters for prolonged periods of time, it is economically advantageous to use semiconductor heat sources rather than conventional electric heaters. Orig. art. has: 4 figures and 19 formulas. [IV]

SUB CODE: 09, 13/ SUBM DATE: 14May65/ SOV REF: 003/ ATD PRESS: 5115

Card 2/2

ACC NR: AP7005267 SOURCE CODE: UR/0371/66/000/006/0084/0090

AUTHOR: Nayer, V. A.—Naers, V.; Raman, M. L.—Ramans, M.; Simanovskaya, A. Ye.—Simanovska, A.; Stafetskiy, L. P.—Stafeckis, L.; Shalenyy, E. G.—Saloniņš, E.

ORG: Institute of Physics and Power Engineering of the Academy of Sciences, Latvian SSR (Fiziko-energeticheskiy institut AN Lat)

TITLE: Investigation of semiconductor thermopiles for cooling and heating of air

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 6, 1966, 84-90

TOPIC TAGS: semiconductor device, refrigeration equipment, thermoelectric cooling, thermoelectric equipment, AIR CONDITIONING EQUIPMENT, AIR HEATER

ABSTRACT:

The design and development of a semiconductor thermopile which is the basis of a prospective all-year-round air conditioner for passenger railroad cars is described. The thermopile is made from materials whose z is in the range of $(2—2.2)\cdot10^{-3}$ 1/K. The basic materials for its positive side are Sb_2Te_3 and Bi_2Te_3; for the negative side they are Bi_2Te_3 and Bi_2Se_3. It is made from 96 thermocouple elements (20 x 20 x 3.8 mm each) connected in a series circuit with copper commutational plates which are finned on the cold and hot sides. The fins are 40 and 60 mm high on the cold and hot sides, respectively, and their thickness and the spacing between them are 0.5 mm

Card 1/2 UDC: none

ACC NR: AP7005267

and 1 mm. The hot junction is cooled by forced air circulation. The thermopile was bench-tested under simulated environmental conditions to determine its cooling and heating capacities. The maximum obtained cooling capacity was 425 w at a cooling factor of 0.57 for an airflow rate of 150 kg/hr. The heating capacity ranged from 170 to 600 w at a heating factor from 3.2 to 1.5 for an airflow rate of 222 kg/hr and an operating current range from 50 to 150 amps. A disadvantage of the thermopile is its low cooling factor in comparison to that of compression-type coolers. The thermopile heater is more efficient than electrical heaters, however. Since air conditioners on railroad cars operate as heaters for prolonged periods of time, it is economically advantageous to use semiconductor heat sources rather than conventional electric heaters. Orig. art. has: 4 figures and 19 formulas.

[IV]

SUB CODE: 09, 13/ SUBM DATE: 14May65/ SOV REF: 003/ ATD PRESS: 5115

Card 2/2

NAYERMAN, M.S.

USSR/ Miscellaneous Machine Tools

Card : 1/1

Authors : Naerman

Title : Experiment in the introduction of high speed grinding

Periodical : Stan. i instr., 3, 1 - 5, Mar 1954

Abstract : High-speed grinding is introduced to industry. Three methods of high-speed grinding are described. The first method consists in increasing the speed of the grinding wheel without changing other grinding factors. The second method is based mainly on maintaining the pressure, stabilized at the level used in regular grinding. The third method consists in increasing the speed of the grinding wheel and the cutting depth. A detailed analysis of straightening truncated grinding wheels is also given. Graphs; diagrams.

Institution : ....

Submitted : ....

NAYERMAN, M. S.

Nayerman, M. S.

"Investigation of some problems of circular incisive grinding." Min Higher Education USSR. Moscow Automotive Mechanics Inst. Moscow, 1956. (Dissertation for the Degree of Doctor in Sciences."

Knizhnaya letopis'
No. 35, 1956. Moscow.

POPOV, S.A.; KAMINSKIY, M.Ye.; PERESHTSKIY, M.L.; MAYERMAN, M.S.; SMIRNOVA, I.S.; MUSAYELYAN, Ye.K.; SIL'VESTROV, V.D. [deceased]; KULIKOV, A.V.; NESMELOV, A.F., kand.tekhn.nauk, red.; IVANOVA, N.A., red.izd-va; GORDEYEVA, L.P., tekhn.red.

[Dressing grinding wheels with diamond and diamond-substitute tools] Pravka shlifoval'nykh krugov almaznymi instrumentami i zamenitelyami almazov. Pod red. A.F.Nesmelova. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 101 p. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut almaznogo instrumenta i protsessov almaznoy obrabotki. 2. Gosudarstvennyy nauchno-issledovatel'skiy institut almaznogo instrumenta i protsessov almaznoy obrabotki (for all except Nesmelov, Ivanova, Gordeyeva).
(Grinding wheels) (Diamonds, Industrial)

NAYERMAN, M.S.; GORLOV, V.V.

Active control of honing operations. Stan.i instr. 33 no.7:21-22 Jl '62. (MIRA 15:7)
(Grirding and polishing) (Automatic control)

L 27349-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)
ACC NR: AP6007725 (A) SOURCE CODE: UR/0413/66/000/003/0137/0138

AUTHORS: Zbarskiy, Yu. Sh.; Knyazhitskiy, I. I.; Krasnyanskiy, A. S.; Nayerman, M. S.

29
B

ORG: none

TITLE: Device for honing a cylindrical surface. Class 67, No. 178708

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 137-138

TOPIC TAGS: machine tool, honing

ABSTRACT: This Author Certificate presents a device for honing a cylindrical surface with abrasive bars automatically forced apart inside the machined hole by a hydraulic drive. To provide continuous automatic control of the cutting regimes of the abrasive bars during the cutting process, the device is equipped with a monitoring system having feedback of the power required to turn the honing head (see Fig. 1). This feedback provides a hydraulic pressure level which increases the specific tool pressure of the bars as the surface roughness of the machined part decreases. To provide periodic pressing apart of the cutting bars over the working length of

Card 1/2 UDC: 621.923.5.02

L 27349-66

ACC NR: AP6007725

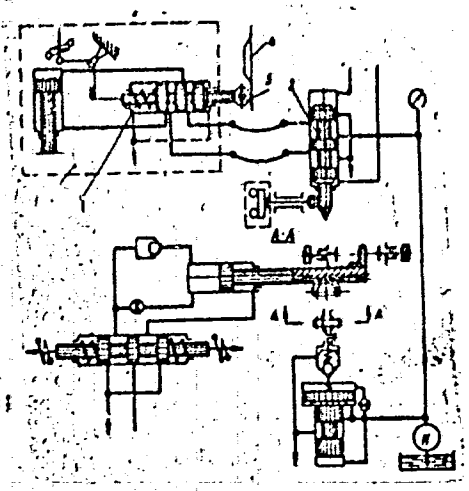


Fig. 1. 1 - honing head; 2 - motion reversing valve; 3 - auxiliary valve; 4 - cam; 5 - roller.

the opening without changing the head diameter during over-travel, an additional feature provides an auxiliary valve between the valve which reverses the hydraulic piston motion and the cylinder of the hydraulic drive. This valve is actuated during the axial oscillating motion of the honing head by a stationary cam. Orig. art. has: 1 figure.

Card 2/2 PB SUB CODE: 13/ SUBM DATE: 28Jun62

MARKOV, R. IA.

Mining electrical engineering; a textbook Moskva Ugletekhizdat Ministerstva Zapaduglia 1948
303 p. (50-19019)

TN343.M3

NATEROV, R.Ya.

Use of fluorescent lighting in underground coal mines. Izv. DGI 28:54-67 '58. (MIRA 11:10)
(Mine lighting) (Fluorescent lighting)

NAYEROV, Roman Yakovlevich; MIRSKAYA, V.V., red.izd-va; BERKSLAVSKAYA, L.Sh., tekhn.red.

[Electric lighting of coal mines] Elektricheskoe osveshchenie ugol'nykh shakht. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959. 174 p. (MIRA 12:12)
(Mine lighting)

NAYEROV, R. Ya., dotsent

Gap in the training of a mining engineer. Izv. vys. ucheb. zav.; gor. zhur. no.9:185-186 '61. (MIRA 15:10)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema.

(Mining engineering—Study and teaching)
(Electric lamps, Portable)

NAYEROV, R. Ya., dotsent

Conversion of the lamp room in the "Bol'shevik" Mine to self-service. Izv. vys. ucheb. zav.; gor. zhur. no.10:157-158 '61.
(MIRA 15:10)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema. Rekomendovana kafedroy gornoy elektrotekhniki.

(Krivoy Rog Basin—Iron mines and mining—Safety measures)

OSTROVSKIY, Semen Moiseyevich; PETRENKO, Yevgeniy Vasil'yevich; KORNEV, Veniamin Grigor'yevich; BOYKO, A.A., retsenzent; BELOSVETOV, ..V., red.; VYSOCHIN, Ye.M., red.; DVOYNIN, A.I., red.; DENISENKO, A.I., red.; LOKSHIN, B.S., red.; MARSHAK, I.S., red.; MAYEROV, R.Ya., red.; NEKRASOVSKIY, Ya.E., red.; RATUSHNYY, A.A., red.; RIPP, M.G., red.

[Handbook for Donets Basin miners] Spravochnik shakhtera Donbassa. Moskva, Izd-vo "Nedra," 1964. 411 p.
(MIRA 17:7)

POLYAKOV, N.S., prof., doktor tekhn. nauk; LICHIN, A.Ya., kand. tekhn. nauk; PALEY, B.Z., inzh.; CHERKASSKIY, F.B., inzh.; NAYEROV, V.R., inzh.

Walking mechanism for moving shields. Shakht. stroi. 5 no.8:10-13 Ag '61. (MIRA 16:7)

1. Dnepropetrovskiy gornyy institut (for Polyakov, Lichin, Nayerov). 2. Institut gornogo dela AN UkrSSR (for Paley, Cherkasskiy). 3. Chlen-korrespondent AN UkrSSR (for Polyakov).
(Mine timbering—Equipment and supplies)

POLYAKOV, N.S.; LICHIN, A.Ya., kand.tekhn.nauk; PALEY, B.Z., inzh.; CHERKASSKIY, F.B., inzh.; NAYEROV, V.R.

Supply of support elements in development mining with power-operated shields. Shakht. stroi. 6 no.3:19-20 Mr '62. (MIRA 15:3)

1. Dnepropetrovskiy gornyy institut (for Polyakov, Lichin).
2. Institut gornogo dela AN USSR (for Paley, Cherkasskiy).
3. Dnepropetrovskiy gornyy institut (for Nayerov). 4. Chlen-korrespondent AN SSSR (for Polyakov).
(Mine timbering) (Precast concrete construction)

NAYFEL'D, A.M.

Pliers for bending the TORF tubular wire. [Suggested by A.M. Nayfel'd]
Rats. i izobr. predl. v stroi. no.145:13-15 '56. (MLRA 10:3)
(Electric wire, Insulated) (Tools)

GLUZDOVSKIY, S.M.; SOKHRANSKIY, S.T.; GORNOVA, I.S.; MARKINA, V.A.; KAPLAN, A.A.; MAYFEL'D, A.M.; SOKOLOVA, M.P., red.; ZOLOTAREVA, M.A., red.; LARIONOV, G.Ye., tekhn. red.

[Technical documentation on cable jointing sleeves] Tekhnicheskaia dokumentatsiia na kabel'nye mufty. Moskva, Gosenergoizdat. No.14. [Jointing sleeves and termination of three-wire 1 kv. cables with aluminum sheathing used as common neutral wire (fourth strand)] Mufty i zadelki na trekhzhil'nykh kabeliakh s aliuminievoi obolochkoi na napriazhenie 1 kv pri ispol'zovanii obolochki v kachestve nulevogo rabochego provoda (chetvertoi zhily). 1963. 55 p. (MIRA 16:9)

1. Nauchno-issledovatel'skiy institut kabel'noy promyshlennosti (for Markina). 2. Moskovskoye proyektno-eksperimental'noye otdeleniye Gosudarstvennogo proyektnogo instituta tyazheloy elektricheskoy promyshlennosti (for Mayfel'd).
(Electric cables)

AVRAMOV, S.K., kandidat tekhnicheskikh nauk; KAYFEL'D, L.R., inzhener; SKIRGELLO, O.B., inzhener; SAFONOV, P.V., redaktor; SMOL'YAFOVA, M.V., tekhnicheskiy redaktor

[Drainage of industrial sites and urban areas] Drenazh promyshlennykh ploshchadok i gorodskikh territorii. Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1954. 427 p. (MLRA 7:11)
(Sewerage)

NAYFEL'D, L.R., inzh.; SMELYAKOVA, A.D.

Using hydroelectric power station reservoirs in flood control.
Gidr. stroi. 32 no.6:29-32 Je '62. (MIRA 15:6)
(Iriklinskiy Reservoir--Flood control)

NAYFEL'D, Lev Romanovich; BURLAKOV, N.Ya., inzh., retsenzent; KOLODYAZHNAYA, Zh.A., red.

[Hydraulic engineering in city planning] Gidrotekhnika v gradostroitel'stve. Moskva, Vysshaia shkola, 1965. 250 p. (MIRA 18:6)

[illegible], A.A., [illegible]

Tubes

Producing lead cable tubing by dipping. Prom. energ. 2, No.4, 1962.

Monthly List of Russian Accessions, Library of Congress, September 1962, UNCLASSIFIED

MAYFEL'D, M.P.

Arranging repeated grounding of zero wires. Energetik 1 no.7:30-31 D '53. (MLRA 6:12)
(Electric lines--Overhead)

BELOV, N.N.; BOL'SHAM, Ya.M*; GORDEYEV, A.N.; GRACHEV, V.A.; YERMILOV, A.A.; ZALESSKIY, A.M.; KIZEVETTER, Ye.N.; KNORRING, G.M.; KONSTANTINOV, B.A.; KOPYTOV, N.V.; LEVIT, G.O.; MILLER, G.P.; NAYFELID, M.P.; PRIBYSHEV, A.A.; SERBINOVSKIY, G.V.; SOKOLOV, B.A.; STASILOYTS, A.B.; TAYTS, A.A.; KHRAMUSHIN, A.M.

Mikhail Konstantinovich Kharchev; obituary. Belov and others. Prom. energ. 12 no.12:33 D '57. (MIRA 10:12)
(Kharchev, Mikhail Konstantinovich, 1896-1957)

SYROMYATNIKOV, I.A.; GRUDINSKIY, P.G.; PETROV, I.I.; KOROL'KOVA, V.I.; SERBINOVSKIY, G.V.; BOL'SHAM, Ya.M.; LIVSHITS, D.A.; FAYERMAN, A.L. HAYFELD, M.P.; ZHIVOV, M.S.; ONKIN, A.K. (Moskva)

Candidate of engineering L. P. Podol'skii. Elektrichestvo no.1:96 Ja '58. (MIRA 11:2)
(Podol'skii, Lev Petrovich, 1887)

NAYFEL'D, M.P.

AUTHOR: Nayfel'd, M.P. 91-58-5-33/35

TITLE: The Grounding of Elektromotors Mounted on Slide Rails (Zazemleniye elektrodvigateley, ustanovlennykh na salazkakh)

PERIODICAL: Energetik, 1958, Nr 5, p 38 (USSR)

ABSTRACT: In the article it is said that it is not necessary to ground electromotors on slide rails.

AVAILABLE: Library of Congress

Card 1/1 1. Electric motors - Grounding

MAYFEL'D, M.P.

Grounding of cable terminations and equipment mounted on grounded structures. Prom.energ. 13 no.4:37 Ap '58. (MIRA 11:4)
(Electric engineering)

USSR/Engineering - Electric Power Systems Sep 49
High Voltage Lines

"Electric Power Supply Systems for Industrial Enterprises," M. R. Nayfel'd, Engr, Tsentroelektromontazh, 4 pp

"Prom Eneget" No 9

Describes high-voltage line for intrafactory electric supply. Analyzes problem from standpoint of dependability, economy, flexibility, and selection of number, capacity and location of substations. Three basic systems used are radical, main-line, and compound. Gives example of system for supplying large metallurgical enterprises with 80,000-kw demand.

150T28

NAYFEL'D, M. R.

Electric Wire

Solders and fluxes for soldering and welding aluminum wires and cables. Rab. energ., 1, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Uncl.

NAYFEL'D, M. R.

Electric Wiring

B. L. Varshavskiy's question: Laying conductors in steel pipes. Rab. energ., 2, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

MAYFELD, M. R. (ENG.)

Electric Wire

Use of insulated aluminum wire. Rab. energ., 2, no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1955~~, Uncl.

NAYFELD M. R.

Electric Currents

High and low voltage installations. Rab. energ. 2 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

MAYFEL'D, M. R.

Electric Currents

Magnitude of potential on body of neutral current receivers. Rab. energ. 2 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Uncl.

NAYFEL'D, M. R.

Electric Fuses

Installation of fuses in networks with grounded neutral conductor. Rab. energ. 2, no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.

MAYFEL'D, M.R.

Electric Wiring, Interior

Gas-pipe joints in electric wiring. Rab. cnerg.,2, no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 1953, Uncl.

MAYFELD, M. R., ENG.

Electric Motors, Synchronous

Use of synchronous motors for increasing capacity. Rab. energ. 2 no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1953, Uncl.

1. NAYFEL'D, M. R.

2. USSR (600)

4. Metals-Testing

7. Testing lineman's claws for mechanical strength. Rab. energ. 2, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

1. MAYFEL'D, M. R.

2. USSR (600)

4. Electric Meters

7. Measuring electric energy of a three-phase current with a single-phase meter. Rab. energ. 2 no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

ALEKSANDROV, A.A.; NAYFEL'D, M.R.; SOKOLOV, B.A., redaktor

[Terminal splitting of control cables by S.V.TSyganov's method] Razdelka kontrol'nykh kabelei po metodu S.V.TSyganova. [Nauch. redaktor B.A.Sokolov] Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 13 p. (MLRA 7:5)
(Electric cables)

NAYFEL'D, M.R.

Wires for low voltage, overhead lines. Energetik 1 no.2:38-39 Jl '53.
(MLRA 6:8)
(Electric lines--Overhead)

NAYFEL'D, M.R.

Use of bare zero wires in pipes. Energetik 1 no.3:37 Ag '53. (MLRA 6:8)
(Electric wiring)

NAYFEL'D, M. R.

Electric Lines

Type of cable and arresters in the lead-in of overhead lin.. with a maximum voltage of 1000 volts, Mab. energ. 3, No. 1, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, May 1953, Unclassified.

1. NAYFELD, M. R.
2. USSR (600)
4. Electric Currents - Grounding
7. Simultaneous application of grounding and neutralizing. Rab. energ. 3 No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

1. NAYFEL'D, M. R.

2. USSR (600)

4. Electric Insulators and Insulation

7. Using wood as insulating material in crane installations. Rab. energ. 3 No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

1. NAYFEL'D, M.R.
2. USSR (600)
4. Electric Lines - Overhead
7. Location of a zero conductor on line supports, Rab.energ. 3 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

1. NAYFEL'D, M.R.

2. USSR (600)

4. Electric Currents - Grounding

7. Grounding electric instruments, Lab.energ. 3 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

1. MAYFEL'D, F.R.

2. USSR (600)

4. Electric Wire

7. Selecting the size of wires depending upon the number of hours of maximum load, Rab.energ. 3 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

1. NAYFEL'D, M.R.

2. USSR (600)

4. Electric Wire

7. Selecting wires for placing in flexible metal hose, Rab.energ. 3 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

HAYFEL'D, M.R.

Number of revolutions of a synchronous motor. Energetik 3 no.5:38 O '53.
(MLRA 6:10)

(Electric motors, Synchronous)

MAYFEL'D, M.R., inzhener.

Selecting steel conductors in grounding systems. Energetik 2 no.1:34-38 Ja '54. (MLRA 7:1)
(Electric conductors)

HAYFEL'D, M.R.

Connecting the grounding of lightning rods with the grounding of electrical equipment. Energetik 2 no.2:33-34 F '54. (MLRA 7:4)
(Electric currents--Grounding)

HAYFEL'D, M.R., inzhener.

Utilizing ground as a phase or zero conductor in 1000 volt installations. Energetik 2 no.3:5-6 Mr '54. (MLRA 7:5)
(Electric currents--Grounding)

MAYFEL'D, M.R.

Grounding under permafrost conditions. Energetik 2 no.5:37-38 My '54.
(MLRA 7:6)

(Electric currents--Grounding)

MAYFEL'D, M.R.

AID P - 1171

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 24/31

Author : Mayfel'd, M. R.

Title : Testing electrician's belts and grapplers. (Letters from readers)

Periodical : Energetik, 11, 36, N 1954

Abstract : In reply to a question from a reader, the author briefly enumerates and explains the required inspections according to existing safety rules.

Institution : None

Submitted : No date

NAYFEL'D, M.R.

AID P - 1172

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 25/31

Author : Nayfel'd, M. R.

Title : Application of profile steel for grounds. (Letters from readers)

Periodical : Energetik, 11, 36, N 1954

Abstract : In reply to a question from a reader, the author briefly explains that profile steel can be used for grounding in the absence of steel pipes.

Institution : None

Submitted : No date

AID P - 1199

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 21/27

Author : Nayfel'd, M. R.

Title : Application of disconnecting switches with a central handle. (Letters from readers)

Periodical : Energetik, 12, 30-31, D 1954

Abstract : In reply to a question from a reader, the author explains that according to the safety rules, circuits operated at the switchboard may be only of sufficient energy to actuate the relay switches. He enumerates the types of switches produced by the factories of the Ministry of the Electrical Industry and explains their application.

Institution : None

Submitted : No date

AID P - 1201

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 23/27

Author : Nayfel'd, M. R.

Title : Connecting direct-stroke shielding to the neutral. (Letters from readers)

Periodical : Energetik, 12, 32, D 1954

Abstract : In reply to a question from a reader, the author explains the details of shielding of low voltage lines, according to the "Rules of Construction of Low Voltage Networks", specifically the chapter on "Rural Electric Power Installations".

Institution : None

Submitted : No date

NAYFEL'D, M.R.

AID P - 1975

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 24/25

Author : Nayfel'd, M. R.

Title : Combining grounding and neutral circuits

Periodical : Energetik, 4, 39-40, Ap 1955

Abstract : In reply to questions from several readers, the author briefly explains how to execute an isolated and a grounded neutral, and why it is not necessary to make separate grounding and neutral circuits. One diagram.

Institution: None

Submitted : No date

NAYFEL'D, M. R.

AID P - 1945

Subject : USSR/Electricity

Card 1/2 Pub. 29 - 25/31

Authors : Nayfel'd, M. R. and Parini, Ye. P., Engs.

Title : Contact resistance of connections of steel conduits for electrical wiring

Periodical : Energetik, 3, 33-37, Mr 1955

Abstract : The Central Design and Experimental Office of the Trust "TSENTROELEKTROMONTAZH" made a series of tests to determine contact resistance of conduit couplings and bushings. Tests were made under laboratory conditions with various types of connections, and then under operational conditons. Possibilities of using conduits for grounding and as neutrals were investigated. It was found that the best contacts are obtained with properly made tightly connected pipe threads. Conduits can be used in grounding, but not

AID P - 1945

Energetik, 3, 33-37, Mr 1955

Card 2/2 Pub. 29 - 25/31

as neutrals since even small defects in couplings may render the neutral ineffective. One diagram, 2 tables.

Institution: None

Submitted : No date

Nayfel'd, M. R.

AID P - 2834

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 23/30

Author : Nayfel'd, M. R., Eng.

Title : Scientific and technical conference on electrical equipment for industrial establishment (Current events)

Periodical : Elektrichestvo, 6, 81-82, Je 1955

Abstract : The All-Union Scientific Society of Power Engineers and Technicians (VNITOE) organized in February 1955 in Leningrad a meeting on the problem of electrical equipment. 455 representatives of ministries, industrial enterprises, power systems, universities, etc. from all over the Union participated. The author enumerates the most important reports and their authors and summarizes the resolutions.

Institution : None

Submitted : No date

NAYFEL'D, M. R.

AID P - 3240

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 25/30

Author : Nayfel'd, M. R., Eng.

Title : Protection from electric shock by way of protective disconnection

Periodical : Energetik, 8, 32-35, Ag 1955

Abstract : Replying to inquiries of many readers, the author describes the details of "protective disconnection" which can be used in industrial establishments instead of grounding of electrical equipment. The essential of such protection consists in an arrangement which immediately disconnects the protected object as soon as a specified voltage appears on its casing. The advantage of this system consists in the fact that such protection operates much quicker than grounding. The author describes three types of "protective disconnection" and presents formulas for their calculation, according to the degree of protection required. One table, 3 connection diagrams.

Institution : None

Submitted : No date

NAYFEL'D, M.R.

AID P - 3538

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 2/27

Author : Nayfel'd, M. R., Eng.

Title : Grounding of movable installations and mechanisms

Periodical : Energetik, 11, 5-7, N 1955

Abstract : The author classifies movable installations and mechanisms into three groups and suggests for each group the types of grounding which he considers most efficient. Two connection diagrams.

Institution : None

Submitted : No date

AID P - 3445

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 12/32

Authors : Nayfel'd, M. R., and Zak, S. M., Engs.

Title : Calculation of transformer impedance for determining the resistance of grounded neutral

Periodical : Elektrichestvo, 10, 49-52, O 1955

Abstract : The authors study the problem of influence of resistance and reactance of transformers of up to 1000-kva capacity with secondary windings 380/220 and 220/127 v. and a star-star connection upon the impedance of the neutral grounding. The study is important for the problem of disconnecting a faulty sector. The authors present a method of calculating the current of a single-phase short allowing for transformer impedances. For practical purposes they present a simplified

AID P - 3445

Elektrichestvo, 10, 49-52, O 1955

Card 2/2 Pub. 27 - 12/32

method and give a numerical example. Three tables, 1 diagram, 3 Soviet references (1946-1954).

Institution : Tsentroelektromontazh (Electrical Installation Trust of the Central Region)

Submitted : F 4, 1955

LUK'YANOV, Ye.V., inzhener; NAYFEL'D, M.R., inzhener.

Mechanical drilling in installing electric wiring and outlets. Mekh. stroi. 12 no.3:30-32 Mr '55. (MIRA 8:4)
(Drilling and boring machinery)

HAYFEL'D, M.R., inzhener.

Grounding portable installations and machinery. Energetik 3 no.11:5-7 N '55. (MLRA 9:1)
(Electric engineering--Safety measures)

MAYFEL'D,M.R., inzhener; ZAK,S.M., inzhener

Calculating transformer resistances by determining the resistance of the zero-phase loop. Elektrichestvo no.10:49-52 O'55. (MLRA 8:12)

1. TSentroelektromontazh
(Electric transformers)

MAYFEL'D,M.P., inzhener

Protecting people against injury from an electric current by protective circuit opening. Energetik 3 no.8:32-35 Ag '55. (Electric protective apparatus) (MLRA 8:10)

HAYFELD, Mark Romanovich; VORONTSOV, P.F., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Protective grounding in electric engineering establishments] Zashchitnye zazemleniia v elektrotekhnicheskikh ustanovkakh. Moskva, Gos. energ. izd-vo, 1956. 159 p. (MLRA 9:9)
(Electric currents--Grounding)

HAYFEL'D, M.R.

Correlation factors in measuring the resistance of earthing devices. Energetik 4 no.1:39-40 Ja '56. (MLRA 9:4)
(Electric measurements)

HAIFEL'D, M.R.

Contact voltage. Energetik 4 no.6:38-39 Je '56. (MLRA 9:8)
(Electric engineering)

NAYFEL'D, M.R., inzhener.

Plan for new Rules for Grounding Systems. Prom.energ. 11 no.1: 25-28 Ja '56. (MLRA 9:6)
(Electric engineering)

Nayfel'd, M.R.

NAYFEL'D, M.R.

Connecting secondary windings of step-down transformers for local lighting. Prom.energ.12 no.11:39-40 N '57. (MIRA 10:12)
(Electric transformers)